## WHAT IS CLAIMED IS:

- 1. A cross-meshed waste gas purification structure with circulated filtering and coating that is comprised a filter, a support axle, a bearing housing, a motive rod, a chest base, and a motor; wherein a bearing being pivotally coupled to each of both ends of said support axle, and said two bearing housings being disposed in parallel at the opposite ends of the inner walls of said chest base with an appropriate distance apart and setting a different height with the bearing housing fixed on the opposite side, such that each of both sides having a support axle with different heights with each other to allow a S-shaped filter to move along and facilitate the filter to be fixed to the intersection of both sides for collecting paint and dust, and said filter being an interwoven cotton mesh member with meshes all over its meshed surface, and being supported by a rotary rod at one end, and said filter passing through a first support axle back and forth into two support axle at the bottom and output from a motive rod, and the motive rod being coupled to a variable motor for driving said filter upward to define a multi-layer S-shaped track for the movement, such that both sides being capable of mixing the dirty paint with the waste gas to accomplish the air purification function.
- 2. A cross-meshed waste gas purification structure with circulated filtering and coating that is described in 1<sup>st</sup> item of Patent Application, wherein said meshes on both side of the S-shaped track adhere the dirty residue into the apertures of said meshes to increase the storage area and accomplish a 100% purification function.